



Federalism and the Challenges of Improving Information Systems for Human Services

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Three years ago, the U.S. General Accounting Office and the Rockefeller Institute of Government jointly established the Working Seminar on Social Program Information Systems (Working Seminar), which consists of approximately 30 regular members who have met eight times. In a real sense, the Working Seminar is an experiment in federalism. The members include federal and state officials, representatives of major organizations, and outside experts. When the seminar was established, the aim was to set up a mechanism that could “learn and lead” in responding to the technological challenge of “the new welfare.” The term new welfare refers to the policy environment produced by the enactment in 1996 of the Personal Responsibility and Work Opportunity Reconciliation Act. This paper draws on the proceedings of the Working Seminar to do three things: (1) present the information technology challenge of the new welfare; (2) discuss information systems of the old welfare; and (3) offer suggestions for the discussion of a new approach to stimulate and assist in the modernization of information systems for the management of human services.

Technology Challenge of the New Welfare

The central idea of the new welfare (namely, that programs to provide cash assistance for working-age adults and their families should focus on work and achieving self-sufficiency) is not new. Previous laws, rules, and directives adopted by both national and state leaders have consistently stressed this work theme. What is new about the 1996 law is the strength of the signals regarding the importance of work, the way many states have used the flexibility in the law to provide stronger work incentives, the application of sanctions for failure to engage in work activities, and the emphasis on work-related human services.

With respect to work and work activities, the most significant signal is the five-year time limit on the use of federal funds to provide cash assistance to poor families. As in the past, the responsibility for carrying out these policies (both the work focus and time limits) is assigned to the states, but under a new regime in which closed-ended block grants are provided to the states, as opposed to the

open-ended matching grants under prior federal law. Moreover, the 1996 act highlights the service approach to aiding poor families. A range of human services to facilitate work -- child care, transportation, health and other services to meet family needs -- can be paid for with block grant funds.

Earlier attempts to reform welfare emphasized nationally determined financial incentives in structuring welfare payments to encourage work. The distinctive thing about the 1996 law is that it has little to say about work incentives -- leaving that up to the states -- but instead calls for doing things, that is, aiding families by providing services in ways that will enable them to be independent.

In this setting, in which the aim is to provide and connect work-related services for poor families, we have found that the state and local agencies that are likely to do best are those that apply modern information technology. A capacity to track and link the services provided to families is essential to make the work focus a reality. This is the technology challenge of the new welfare.

The information revolution can have a powerful effect in government across a wide range of human services that are an important component in helping families to function better and to self-support. Its role is multi-dimensional. Information systems can aid many key groups involved in the provision of human services. These include: (1) policy officials in monitoring the fulfillment of welfare policy goals; (2) managers in clearly stating and carrying out program objectives; (3) evaluators in assessing the effects of human services; (4) front-line workers in integrating and tracking human services to reduce family dependency; and (5) recipients of aid and services in understanding and accessing the kinds of help that can be provided to them. While all of these groups are important, there is a special need at the point of service delivery to be able to track and integrate services on the part of agency case managers and their clients.

Service Integration

Service integration, which is intrinsic to the new welfare, is a long-sought aim of many leaders in the field of human services. Gary Weeks, formerly director

of the Oregon Department of Human Resources, sees the need for doing this as “patently clear.”¹

In most states, clients shop for services among disconnected systems, a collection of agencies that act independently. If clients are successful -- that is, if we find them eligible and we begin to deliver services to them -- then they have to figure out how to meet the goals and requirements of multiple and sometimes conflicting case management plans.

Referring to his Oregon experience, Weeks said:²

We set out as our strategy to create a system that involves coordinated assessments of the needs of the client and the client’s family. The aim is the delivery of multiple services and programs in a seamless way where the client does not know who is giving him the service, which division, or which program. A single case management plan; that was one of our paramount goals. We wanted the client to have one case management plan and one case manager. Somebody who we would call the “*navigator*” backed up by an information system that is integrated and accessible to multiple state agencies and many of our key local partners. ... This is not a technology problem. It is a problem of bringing all the folks together and deciding which databases you are going to use and who you are

¹ Gary Weeks. “*Integrating Human Services*,” Policymakers’ Forum, Albany, New York: Rockefeller Institute of Government, (Mar. 12, 2001).

² Ibid.

going to give access to and so on. But it is not a technology problem.

For the past 30 years, this idea of service integration has been recommended frequently. However, a constant underlying problem is that the real politics of human services make this very difficult to accomplish. The political/bureaucratic silos of human services -- for jobs, food, health, housing, education and training, etc. -- all have their own cultures and politics. Their rules are often inconsistent, sometimes even conflicting. Complaints by families (all families, not just poor families) having difficulty with, and often frustrated by, these different systems are widespread.

The subjects selected for consideration at the meetings of the joint GAO-Rockefeller Institute Working Seminar have highlighted opportunities for human service integration through the application of information technology. Meetings of the seminar have considered such topics as the aims of service integration, barriers to achieving these aims, and the approach and practices of places in the country where progress has been made in achieving service connectedness. Based on these discussions, it's clear that there are many definitions of "service integration" -- definitions that meet local needs and program designs. IT is in the eyes of the beholder. Regardless of the particular definition of service integration, information technology can facilitate connecting needy families with programs and services.

Another key point that has been made frequently in our discussions is that improving IT should not be an end in and of itself. *IT is a tool* that when properly integrated into a larger system of service delivery can help to break down the bureaucratic barriers and stovepipes that impede service integration.

In summary, information technology can allow human service providers to leapfrog the politics of program proliferation. While the idea that human services should be physically co-located (the so-called "one-stop" approach) is appealing, the information revolution enables the managers of human services to achieve the

goals of the service integration approach, not necessarily with one stops, but with one screen.

Technology of the Old Welfare

Information systems for human services have a long, checkered history. Different policies and rules apply for different programs. Funding arrangements for systems' modernization have varied as have the priorities assigned to this task.

Reflecting the point made earlier about the resiliency of bureaucratic silos for human service programs, for the most part the development of information systems for human services has been carried out unilaterally. A notable exception are the Family Assistance Management Information Systems (FAMIS) initiated in the early 1980s. These systems were designed to link the determination of eligibility for Aid to Families with Dependent Children (AFDC), Medicaid, and Food Stamps. The three programs were integrated in most states, in no small part because federal funding rules governing these information systems were made consistent for the three programs. However, the de-linking of Temporary Assistance for Needy Families (TANF) and the Medicaid and Food Stamp programs in 1996 may now cause states to move back to stand-alone systems for these programs, in this way turning back the clock on systems integration for income support for poor families.

Federal oversight has also varied in its character and strength. In the case of collecting child support, the federal government has been hard charging in pressing the states to set up tracking systems and penalizing them for failing to do so. In other program areas, the approach has been more *laissez faire*. This is the case of employment and training programs, where states have been given wide latitude by the U.S. Department of Labor in deciding on the role and purposes of information systems. For other agencies, the federal role lies between these two poles, with varying amounts of specification as to their design, role, and coverage. Table 1 provides information about the arrangements for federal funding and the percentage of federal cost coverage in seven major programs.

Table 1: Federal Program Information Systems Funding

Program	Federal agency	Nature of funding	Funding percent for IT	Rules for funding
TANF	DHHS/ACF	Block grants	100	Few
Medicaid	DHHS/CMS	Entitlement	50, 75 and 90	APD
Food Stamps	DOAg/FNS	Entitlement	50	APD
Child Care	DHHS/ACF	Block grants	100	Few
Child Welfare	DHHS/ACF	Entitlement	50	APD
Child Support	DHHS/ACF	Entitlement	66	APD
Employment and Training	DOL/ETA	Formula grants	100	Few

Notes: DHHS is the U.S. Department of Health and Human Services. ACF is the Administration for Children and Families. CMS are the Centers for Medicare and Medicaid, formerly the Health Care Financing Administration. DOAg is the U.S. Department of Agriculture; FNS is the Food and Nutrition Service. DOL is the U.S. Department of Labor; ETA is the Employment and Training Administration. APD stands for the Advanced Planning Document process. For programs subject to this process, states must provide detailed documentation to federal agencies in order to secure federal approval for systems expenditures.

Spending for Human Services Information Technology

Understanding the magnitude of past investments and projected future expenditures provides a useful perspective as we consider how to best modernize human services information systems.

Unfortunately, there are no comparable data on the amount of federal and state spending that has been devoted to information systems for human services. We estimate that for the seven programs shown in table 1, federal and state spending for information systems between 1980 and 2000 has exceeded \$20 billion and that annual increments currently run about \$7 billion. To put this in perspective, compare this amount with the amount of federal funding annually for child care programs, which is approximately \$4.6 billion in fiscal year 2001. (App. A of this paper describes how these estimates were made.) The amount of money spent for human services information systems may not appear to be significant relative to overall program expenditures, but viewed over time and across programs, the total is considerable. The critical point is that even with these large

investments, the situation in terms of information systems' capacity is not good enough. As one of the major activities connected to the Working Seminar, the General Accounting Office, with research support from the Rockefeller Institute, conducted a survey in 1999 of the capacity of state and local information systems for human services.³ The GAO's report described the extent to which systems meet the needs of caseworkers and managers as having "major limitations."

With respect to information needs for case management, the major shortcoming – which exists to varying degrees across the states – is an inability to obtain data on individual TANF recipients from some of the agencies serving them, including the job assistance agencies. This situation makes it difficult for TANF case managers to arrange needed services, ensure that the services are provided, and respond quickly when problems arise such as when a recipient does not attend a scheduled work activity.

Experience has shown that the development of new information systems takes a minimum of 3 to 5 years. Changing staff needs, program requirements, and technological developments often make a system obsolete before it can be implemented. Moreover, overblown expectations for new systems that are supposed to be put into effect on an unrealistic time schedule can have an adverse impact administratively and most importantly on the lives of the people human services are intended to improve.

On the other side of the coin, examples of technological advances that can improve human service management include: the increased capacity of personal computers; the installation of telecommunications networks that facilitate sharing information between offices and programs; open systems' architecture that promotes system flexibility; the development of middleware that allows data to be

3 U.S. General Accounting Office, *Welfare Reform: Improving State Automated Systems Requires Federal*

shared among systems and programs; the increasing use of e-mail; and, of course, the use of the Internet and associated technologies.

Causes of Major Systems' Limitations

Factors inherent in the current program environment, including differing program requirements and funding processes, bureaucratic silos, resource constraints, and contractor business practices, act as barriers to the modernization of human services information systems.

At the federal level, differences between programs can be a result of separate congressional committees that create inconsistent, statutorily based funding processes and program requirements. Separate oversight agencies with differing priorities, staffing levels, financial resources, and bureaucratic structures also can complicate the federal government's interactions with states.

These factors are mirrored at the state level, where bureaucratic stovepipes can hamper coordination. Changes in political leadership can cause shifting program priorities, complicating system development. Staff turnover can interrupt project continuity. Difficulties retaining IT staff can limit contractor oversight and project management.

Contractors, who play a significant role in systems development, have their own priorities and constraints. New federal and state programs create demands for their services that can exceed their available talent and technical resources. Contracting processes that are designed to protect the purchasers and enhance efficiency can conflict with the changing environment of human services programs. Fuller treatment of the factors that can impede systems modernization and a hypothetical case study are included in this paper as appendix B

Over the past decade, organizations such as GAO, the American Public Human Service Association (APHSA), the National Governors Association (NGA), and the National Association of State Chief Information Officers (NASCIO) have made recommendations that reflect a common theme -- that federal agencies should change, improve, and integrate their policies and procedures. (A review

Effort. GAO/HEHS-00-48, Washington, D.C., 2000, p. 9.

of some of these earlier recommendations is included with this paper as app. C.) To date, these and other recommendations have not resulted in wide-ranging and significant changes, perhaps because they were overly reliant on federal action and leadership. We believe it is not wise or reasonable to expect all solutions to come from the federal government, or to conclude that changes made at the federal level will necessarily, easily, and quickly result in better state and local systems. *Principles of federalism suggest that we should look elsewhere for solutions.*

The federal government, the states, and the contractor community all have roles to play in modernizing IT systems for human services. The federal government will and should continue to help pay for systems development and should be expected to play a role in overseeing the use of these funds. The states, in turn, will and should continue to manage the development and operation of systems and outside contractors for the most part will and should have a major hand in designing, developing and implementing these systems. Improvements in the processes of, and the interactions among, these partners are necessary.

A Suggested Approach

The main purpose of this paper is to serve as a catalyst for discussions of new strategies and mechanisms enabling the application of the information revolution to the fertile field of human services. Here, we discuss the creation of a new entity to carry out this purpose. Its mission – to facilitate the development of information systems that better meet the needs of caseworkers, program managers, and the families human services programs are designed to serve. Several premises underlie our thinking.

- 1. The main roles of such an organization should be: (a) development, training, and coaching project managers for state and local IT systems for human services; (b) convening federal and state and local officials across program areas to discuss ways to reduce barriers to the efficient development of these IT**

systems; (c) promoting and showcasing good practices, sharing information about them, and cheerleading for their replication by other jurisdictions; and (d) facilitating innovative systems designs at the state and local level.

2. An entity to carry out this purpose should have insulation from day-to-day politics and policymaking.
3. Another major reason for having insulation is to be able to employ leading-edge experts on a basis that will enable a new organization to attract and retain these top professionals.
4. In order to hire and retain exceptional people and bridging agency policies suggest that such an entity should not be located in an existing federal agency.
5. The desirability of having a buy-in from state governments, suggests that this organization should have a federalism structure that can produce strong and genuine collaboration among levels of government.
6. The existence of such an entity should not be seen as permanent, but rather as a special project to meet a special need.
7. And finally, the entity should have the stature and credibility that would derive from federal legislation. Ideally, the entity should be supported in the upcoming reauthorization of the TANF program, and the duration of the project should match the period for which that program is reauthorized.

With these guidelines in mind, we considered precedents that could be drawn upon to design such a new institutional capability. There are a number of federal entities that have a measure of insulation and have structural properties along the lines just indicated. For example, the National Science Foundation, the National Academy of Science, and the National Institutes of Health all are high-prestige centers of excellence chartered by the federal government and mostly funded by the federal government. In the welfare field, a prominent non-governmental model is the Manpower Demonstration Research Corporation (MDRC). It is an intermediary organization with an exceptional staff and capability, which has had a profound impact in the field of human services in building a knowledge base for programs that aid low-income people. Many MDRC projects have been federally funded. Others have been financed by private foundations and state governments.

Whatever funding sources are relied upon, whether federal or non-federal, care and skill would be required by any organization operating in this field to carry out projects that involve the politics and policies of the different silos of human services. One of us (Dick Nathan) served as a member of the U.S. Advisory Commission on Intergovernmental Relations (ACIR) at the time of its demise in 1996. It had an unwieldy structure that included federal cabinet officers, governors, mayors and other local officials, and outside experts. ACIR's experience suggests that it would make most sense for a new lead organization in the field of human service management to deal with delicate policy issues, not by convening large groups of stakeholders, but rather by contracting out for independent research and analysis and providing a knowledge base for many users and many types of organizational settings.

Such a new entity an *Institute for the Management of Human Services Information Systems* should not have a conventional and centralized command-and-control role orientation. *It should be a federalism invention.* It should have a board that includes a mix of experts in the field, both political and technical, such as former federal, state and local officials responsible for major human services programs. It should also have an advisory apparatus of groups

representing stakeholders -- major associations in the field, the vendor community, organizations interested in the provision of human services, and experts in substantive program areas as well as technical experts.

One major role of an institute to improve information systems for human services would be to undertake special projects to deal with major IT barriers. Barriers listed in appendix B include a number of obvious candidates for such attention, including:

- Funding processes and cost allocation requirements;
- The lack of performance measures for systems development efforts;
- Reporting requirements;
- IT contracting processes.

An example of such a project was suggested by another paper presented at the June 2001 conference. Jerry Friedman of Texas and John Cuddy of Oregon offered an alternative to the much-maligned federal Advance Planning Document Process. States which meet certification standards, such as strong project management and successful past performance in developing information systems, would not be required to submit detailed documentation in order to secure federal funding, as is now the case. An Institute for the Management of Human Services Information Systems would be ideally situated to facilitate the development of the alternative process, including developing certification standards.

There are other important areas in which a new institute could have a consequential role. States desperately need personnel capable of managing large IT projects. Given the difficulty of attracting individuals who possess such skills, a new institute could play a vital role by creating and offering contract-management training for IT officials responsible for creating and managing state and local human service information systems.

Such an institute would serve as a facilitator in the development of IT systems for human services that bridge various levels of government -- federal, state and local, and the multiple agencies within those levels of government. For example, in carrying out this function it could provide technical expertise in the

form of institute staff to assist with innovative projects, or provide contract funding for expert staff to serve in this role.

On a broader scale, the institute could bring together stakeholders and IT users to design state and local systems that are more closely aligned with the new welfare. Such a convening role would help to facilitate service integration to more effectively meet the needs of the families that human services programs are intended to serve.

Ideally, a new organization in this field should have multiple sources of revenue -- federal, state, and private. Best of all, a one-time, multiyear federal grant to initiate the activities of such an entity could be provided in the federal legislation reauthorizing TANF and related programs, such as for food stamps and child care. Other funding sources could include membership fees, and charges for training and staff development, along with foundation support for special studies and to support innovative pilot projects by working with selected state governments.

The ideas advanced in this paper regarding the organizational form, role, and financial arrangements for an institution to stimulate and support the development of information systems for human services were presented as suggestions for discussion at the conference June 28 and 29. We have revised this paper based on feedback from the discussions.

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Appendix A

Estimates of Past and Current Expenditures for Human Services Information Systems

Our estimate of expenditures for human services information systems over the past 2 decades is based on the following information. In 1994, GAO estimated that from 1980 through 1992 the federal government invested approximately \$8.8 billion in human services information systems. Including state expenditures increases the total to well over \$10 billion.¹ Since that time, the Administration for Children and Families (ACF) estimates that over \$1.5 billion has been expended on child support enforcement systems and a similar amount on child welfare systems. The states reported expending over \$800 million in TANF funds for information systems from fiscal year 1997 through the end of fiscal year 2000 (this total does not include state funds.)² Extrapolating for programs for which no data are available (child care, employment and training) and over time until the present, it is well within reason to conclude that federal and state expenditures for information systems for the programs in table 1 exceeded \$20 billion between 1980 and 2000.

Our estimate of current expenditures is based on the following information. States reported that expenditures for information systems from the TANF block grant were \$337 million in fiscal year 1999, a substantial increase over 1997 and 1998 levels. The Centers for Medicare and Medicaid (CMS, formerly the Health Care Financing Administration) estimates that annual expenditures for Medicaid management information systems, eligibility systems, and peripheral systems development exceed \$1.5 billion annually. The Department of Agriculture's Food and Nutrition Service estimates that expenditures for systems development for the Food Stamp program exceed \$750 million annually. Thus, expenditures for systems for these three programs likely

¹ U.S. General Accounting Office, *Automated Welfare Systems: Historical Costs and Projections*. GAO/AIMD-94-52FS, Washington, D.C., Feb. 1994, pp. 3 - 4.

exceed \$3 billion per year. Maintenance and operations of these systems is a substantial additional cost. For example, in the Food Stamp program, state expenditures for maintenance and operations are nearly double that of systems development.³ NASCIO (formerly the National Association of State Information Resource Executives), based on a survey of the states conducted in 1998, reported “over \$4.2 billion is budgeted annually for human services information technology for the 33 responding states (3 did not respond to the question.) While this is an imposing figure, consider that if the reported rate is projected to include all fifty states the figure would top \$6 billion. Even this figure may not include all IT spending.”⁴ This estimate did not include employment and training programs.

Based on all this information, we estimate that total federal and state information systems investments for new development, maintenance, and operations for the seven programs included in this analysis exceed \$7 billion per year.

² Financial data on TANF expenditures for fiscal years 1997 through 1999 from state reports, consolidated by the Administration for Children and Families at <http://www.acf.dhhs.gov/programs/ofs/data/index.html>.

³ Estimates of current expenditures for the Medicaid and Food Stamp programs based on information supplied by agency staff in April 2001.

⁴ National Association of State Information Resource Executives, *State Human Service Information Systems: Measuring the Impact of Welfare Reform*. 1998, p. 7.

Appendix B

Barriers that Impede Systems Modernization and a Case Example

Federal Barriers

Federal processes and requirements directly affect state systems development. Listed below are a number of processes and requirements that are viewed by state staff as impediments to the modernization of information systems.

Program Differences – Differences in statutory and regulatory program requirements and funding mechanisms complicate system development efforts. A project that includes multiple programs must meet the individual requirements of each program. The more programs involved, the more complicated the project.

Funding Processes and Cost Allocation Requirements – Federal funding for information systems in entitlement programs is not limited, but requires state matching funds. State matching funds are not required for programs with federal funding caps, but the administrative cost caps within these programs can limit expenditures for information systems. These factors affect state plans and the priority assigned to developing information systems for individual programs. Allocating costs to programs can be problematic. States tend to target expenditures on the programs with the highest federal matching percentage, and in doing so may improperly allocate expenditures to some programs.

The Advance Planning Document (APD) Process – For those programs subject to the APD process, states must obtain prior federal approval before moving forward with information systems development projects. This process can delay the implementation of systems.

Federal Reporting Requirements – Changes in legislation often include changes in reporting requirements, which have significant information systems implications. Delays in the promulgation of the regulations for reporting requirements can exacerbate problems in this area.

Unreasonable Statutory Requirements – Legislated deadlines for reporting and other requirements often fail to take into account the inevitable delay between statutory changes and related information systems changes. Legislation often does not consider or provide for the cost of the necessary systems changes.

Multiple Federal Partners – There is no single source of approval or information regarding program and systems’ requirements at the federal level. Although federal entitlement programs have similar rules for funding information systems, interpretations vary from program to program, and from regional office to regional office.

Lack of Incentives/Disincentives – Federal programs do not provide direct incentives for successful system development, nor do they provide disincentives for failure.¹

Lack of Performance Measures in Systems Development Efforts – The Government Performance and Results Act mandates the development and measurement of performance standards for government programs. There is a notable lack of such measures in the area of systems’ development.

Software Ownership Requirements – Software developed with the use of federal funds is considered to be in the public domain. Some vendors claim that this requirement results in reluctance on their part to develop software for government programs.

State Barriers

States are responsible for managing the implementation and operation of human services IT. Issues that can affect project success include:

Staff Turnover/Retention – Information technology (IT) specialists command increasingly higher salaries. States have difficulty attracting and retaining staff with IT, project management and contract management

¹ The exception is the federal Child Support Enforcement program. Unlike the other federal programs, the Child Support Enforcement program has a history of specific statutory requirements, deadlines and penalties for failure to develop information systems.

experience. Contractors can successfully compete with states for IT staff because they offer higher salaries.

Lengthy Procurement Processes – Many state procurement processes are protracted, delaying systems development efforts. These processes often take more than a year, which, when added to the time that it takes to design, develop and implement a system, can stretch a development project out for a substantial period of time.

Contract Oversight/Project Management – Because states frequently lose or don't have the necessary expertise on staff, and because vendors often have greater systems and legal expertise, there is often a lack of state personnel to oversee IT projects and contractors. Contracts often offer little in the way of protection for states. Even when legal protections are in place, the protracted battles that occur can impede successful systems' implementation.

Incomplete or Inaccurate Functional Requirements Specification – Failure to develop thorough functional requirements and definitions at the time project initiation or the failure to secure buy-ins from the appropriate users can lead to delays and state/contractor disagreements.

Unstable Project Scope – Programmatic changes or changes in user requirements during system development often result in delays and complications.

Project Momentum – Once a project is underway, it is often difficult for state staff to change direction or stop the process, even when there is evidence that there are serious problems. Once promises are made to users, it is difficult to deliver bad news.

Project Inertia – Risk aversion, delaying a project until all of the factors which contribute to project success are in place, or waiting for the program environment to "settle down," increase the pressure to move quickly once a project begins.

Invested Infrastructure – Reticence to abandon investments that have already been made in information systems and infrastructure can lead to

temporary fixes, workarounds, and cobbling new technology to old that can result in delays and inefficiencies.

State and Local Politics – State and local politics often have an effect on systems development efforts. Potential officeholders often use negative information about a development effort to cast the party responsible for the system in a negative light, making it difficult for IT staff to focus on addressing systems problems.

Changes in Political or Administrative Structures – A change in the political party in control of the Governor's office or the state legislature, or a reorganization that shifts responsibility for a project from one office to another, or a new appointment can result in delays, changes in project scope, changes in priorities and staff discontinuity that adversely affect success.

Contractor Barriers

While states are responsible for program administration, most state systems are designed, developed, and implemented by contractors. Contractor issues that can affect IT development include:

Underbidding/Overselling – Vendors will sometimes bid less than a project will actually cost in order to gain a foothold in a state, only to find that costs far exceed the bid. This leads to contract renegotiations and tension over the definition of project scope.

Lack of Experience/Lack of Sufficient Resources – When program requirements change, often there is lack of experience and understanding on the part of state staff and key providers in the private sector in implementing the necessary changes, which then causes delays and other problems in the development of appropriate functionality. For example, with the creation of the TANF program, there was an immediate need for case management functionality. These situations can also create an immediate need for additional private sector staff and expertise that cannot be filled on a timely basis.

Inaccuracy in Estimating Costs – The costs of IT projects almost inevitably escalate. One reason can be that contractors, often inadvertently, underestimate costs, forcing requests for additional funds.

“Permanent” Contracts – Once on site, contractors often want to stay on, and take steps to try to do so. This can lead to sole-source contract extensions, contract amendments designed to continue work, and other practices that discourage competition and increase system costs.

Moving Key Staff from Contract to Contract – When a vendor wins a new contract, experienced staff on another similar project are often pulled away, causing problems for the first project.

The Changed Program Environment

The modernization of information systems for human services is further complicated by factors in the program environment of the new welfare:

Decoupling Medicaid and TANF Eligibility Eligibility under the precursor Aid to Families with Dependent Children (AFDC) program automatically entitled a family to Medicaid. This policy does not necessarily apply, or at least apply in the same way, under the Temporary Assistance for Needy Families (TANF) program. Eligibility determination for the Medicaid program is now more complex. State information systems, for the most part, have not been reprogrammed to reflect these changes.²

Competition for Funds The funding structure of the TANF block grant, unlike the AFDC program, does not provide separate funding for information systems development. Instead, expenditures for information systems offset and compete with other program expenditures. Henry E. Brady and Barbara West Snow stressed this point in their 1996 analysis of systems requirements of the Personal Responsibility and Work Opportunity Act of 1996. “The resources to create a new system do not have to meet

² James Fossett, Thomas L. Gais, and Frank J. Thompson. “Federalism and Performance Management: Health Insurance, Food Stamps, and the Take-Up Challenge” in *Quicker, Better Cheaper? Managing Performance in American Government*, Ed. Dall Forsythe (to be published).

the limit of fifteen percent on administrative costs, but they will have to be taken from resources that would otherwise go to the program itself.”³

State-Local Devolution In many cases, states have given localities extensive flexibility and responsibility to design and implement new welfare reforms. However, TANF and related information systems, usually developed at the state level, may not meet local needs. According to the recent GAO report, “A major shortcoming cited by officials in GAO’s case study states is that some of the automated systems used by agencies providing services to TANF recipients do not share information about these recipients.”⁴

New Partners The emphasis on self-sufficiency through employment under the TANF block grant requires interaction and exchanging information by a number of agencies and organizations. Employment and training agencies, nonprofit service providers, faith-based organizations, and for-profit entities, often need to be partners in providing services to TANF families. In seeking connections with these multiple partners, concerns over the confidentiality and privacy of data can be a special complication.

Program Changes Delay Systems Changes Major changes in state and local programs continue to occur. Some states have delayed making systems modifications until the programmatic landscape is more settled. With the reauthorization of the TANF program, additional delays could occur.

Limited Federal Resources for Technical Assistance Another consequence of welfare reform is the decline of federal involvement in overseeing and assisting state systems’ development for TANF. There are limited federal staff and resources to provide assistance, and there is no a clearinghouse

3 Henry E. Brady and Barbara West Snow. *Data Systems and Statistical Requirements for the Personal Responsibility and Work Opportunity Reconciliation Act of 1996*. University of California Data Archive & Technical Assistance (UC DATA), University of California, Berkeley, Oct. 14, 1996. Prepared for the Committee on National Statistics of the National Research Council – National Academy of Sciences.

⁴ U.S. General Accounting Office, *Welfare Reform: Improving State Automated Systems Requires Federal Effort*. GAO/HEHS-00-48, Washington, D.C., April 2000, p. 11.

on the implementation of new technologies and promising information management practices.

Other Recent Laws Federal requirements resulting from enactment of the Health Insurance Portability and Accountability Act (HIPAA) and the State Children's Health Insurance program (S-CHIP) can divert state staff and funding that might otherwise be devoted to TANF systems' building.

A Case Example

The following hypothetical case example is provided to illustrate how the factors described in this paper and listed in appendix A can delay or derail a system development effort. While the facts have been fictionalized, the case is based on real events.

A mid-western state began planning for a new information system in the spring of 1995 with in-house staff. The original plan called for updating a number of existing systems and linking them to the proposed system, which would include a number of new functions. The original plan called for full implementation within 3 years.

The state submitted a request for funding to the appropriate federal agency in May of that year, and the agency raised a number of questions involving the scope of the project and the allocation of costs. State officials had hoped that enhanced federal funding could be used to modify the existing peripheral systems, but this was not permitted. As a consequence, significant additional state funds were required for the project, necessitating a request to the state legislature for the additional funds. This process delayed the project for 6 months. In the meantime, a new governor was elected, resulting in a change of parties in the state's executive branch, which caused a significant delay in the project.

More than a year passed before a new plan was drawn up and submitted to the federal government. Once again, a number of questions were raised about the scope and scale of the project, as well as the allocation of funds. Although the state did not have the necessary federal approval, because the period during

which enhanced funding was available was running out, the state decided to move forward without it.

The state contracted with two large firms to develop the system and install the hardware. The software developer submitted a proposal to modify and install a system that had been developed in another state at a cost of \$20 million. Language in the contract limited the amount of time and effort that the contractor would devote to the project, essentially guaranteeing them full payment, even if the system was not fully developed and implemented. The state had still not received federal approval. Staff bypassed the normal state procurement process in order to beat the legislative deadline for enhanced funding.

Installation of the hardware and telecommunications architecture proceeded, at a cost of \$40 million. In 1998, the Chief Information Officer left, and an agency reorganization occurred. Staff who were not familiar with the federal approval process, and who previously had not been involved in the management of the project, took over. In the meantime, the cost of software development had escalated. Some of the functionality of the new system was put into production in field offices, where field staff reacted negatively. Their reaction was caused by a number of factors, most significantly that there were major policy and programmatic differences between the state for which the software was originally developed and the state in question. The contractor estimated that the cost of revising the software would double the original estimate. Because the software involved was already in use in the field, project managers reluctantly agreed to the cost increase.

In 1999, the state's Inspector General was asked by minority representatives in the legislature to investigate the project. The Inspector General issued a report that raised serious questions about the contracting process and escalating costs. In the meantime, federal staff informed project managers that because they had not received prior approval of the project, federal matching for the costs of the system were at risk. The results of the Inspector General's report and the potential loss of federal funds were picked up by the media in the state capital. The legislature called for hearings on the project. The negative publicity

and scrutiny caused project staff to devote increasing amounts of time to damage control.

It is now 6 years since the project began. Only partial system functionality is available to field staff. The overall costs of the project have more than doubled since the project began. Although issues related to federal funding have been partially resolved, the original hardware installed in the field offices is now outdated; yet the date of completion of the system is not known.

Appendix C

Recommendations for Change

In the last decade, many organizations have issued reports and made recommendations to facilitate the modernization of human services information systems. Most of these recommendations have focused on federal policies and procedures.

GAO has also issued a series of reports on human services information systems that have included recommendations for change. In a report issued in 1992,¹ GAO recommended that:

the Secretaries of Health and Human Services and Agriculture direct the administering agencies for AFDC, Medicaid and Food Stamps to develop and interagency agreement that calls for (1) effective, complete, and coordinated monitoring of states' systems under development; and (2) evaluating the benefits achieved for states' operational automated systems. To implement the interagency agreement effectively and efficiently, GAO recommends that the Secretaries establish a joint program office to provide leadership and management of the oversight of state automated welfare systems.

In a report on child welfare information systems in 1994,² GAO stated “although states have been receiving federal financial assistance to develop automated child welfare information systems, they have not, until recently, received adequate guidance from HHS on the capabilities the systems should have.”

¹ U.S.General Accounting Office, *Welfare Programs: Ineffective Federal Oversight Permits Costly Automated System Problems*. GAO/IMTEC-92-29, Washington D.C., May 1992, p. 4.

² U.S.General Accounting Office. *Child Welfare: HHS Begins to Assume Leadership to Implement National and State Systems*. GAO/AIMD-94-37, Washington, D.C., June 1994.

In 1997, in a report on child support information systems,³ GAO recommended that:
the Secretary of Health and Human Services direct and ensure that the Assistant Secretary of the Administration for Children and Families take the following actions:

Develop and implement a structured approach to reviewing automation projects so that significant systems development milestones are identified and the costs of project decisions are justified during the entire effort;

Suspend federal funding for any state that is experiencing delays and problems and that is not following generally accepted systems development practices until the state redirects its approach;

Conduct post-implementation reviews to identify any lessons learned, to ensure that OCSE incorporates into its oversight role a nationwide assessment of child support systems that provides a broader perspective on costs, systemic problems, potential solutions, and innovative approaches; and

Assess the impact of welfare reform on existing child support programs and develop timely technical requirements focusing on critical systems changes needed by established deadlines.

Most recently, in the report on the status of state information systems to meet the needs of welfare reform,⁴ GAO “identified four key areas in which federal actions could better facilitate states' efforts to improve their automated systems:”

³ U.S.General Accounting Office. *Child Support Enforcement: Strong Leadership Required to Maximize Benefits of Automated Systems*. GAO/AIMD-97-72, Washington, D.C., June 1997, p. 5

Disseminate information on best practices for managing information technology generally as well as best practices specific to automated systems that support welfare reform.

Review and modify as needed the federal process for systems procurement to ensure that it meets federal needs for state accountability without unnecessarily hindering state development efforts.

Facilitate links among the automated systems used by different state and local agencies through such means as supporting demonstrations designed to promote better partnerships between state and local agencies and coordinating data reporting requirements for different federal programs.

Address the need for states to have access to cross-state information on individuals' TANF receipt to enable enforcement of the 5-year TANF time limit.

In December 1994, the National Center for Service Integration published a report entitled “*Information Systems for Comprehensive Service Delivery*,”⁵ which called for applying information technology to support “comprehensive service initiatives.”

A great deal of interest in and rhetoric about applying information technology solutions to comprehensive service delivery reform efforts are present throughout the country at the community, state, and local level. ... In particular, it is important to coordinate efforts to address some of the common barriers encountered and anticipated by

⁴ U.S. General Accounting Office. *Welfare Reform: Improving State Automated Systems Requires Coordinated Federal Effort*, GAO/HEHS-00-48. Washington, D.C., April 2000, p. 13.

comprehensive services initiatives as they consider ways to apply information technology to achieve their goals.

In a paper issued in June 1994, the American Public Human Services Association (APHSA, at that time APWA) called for a full overhaul of the federal approval process for information technology purchases, and made recommendations related to the federal role in this field.⁶ In late 1997, APHSA, in a report entitled “*A Shock to the Systems – Automating Welfare Reforms in the States*,”⁷ recommended a fundamental change in the nature of the federal role for information technology.

Welfare reform challenges the federal government to adopt a new role as a partner with the states, assisting in effectively and efficiently managing their information systems. With this new direction in mind, in July 1997 APWA’s national Council of State Human Service Administration adopted a resolution on the federal government’s role in human service information systems management. The resolution calls for the federal government to fundamentally alter its philosophy toward human service information systems development, financing, procurement, regulation, and systems approval, with a particular focus on integration automation into the overall strategic plan of the human service program.

Terrence Maxwell of the Rockefeller Institute has written a history of the federal role in welfare information systems.⁸ He concluded that a substantial change in the federal role is needed.

⁵ National Center for Service Integration, *Information Systems for Comprehensive Services Delivery*, Washington, D.C., December 1994, p 56.

⁶ American Public Welfare Association, State-Federal Information Technology Partnership, W-Memo, Washington, D.C., June 1994.

⁷ American Public Human Services Association, *A Shock to the Systems - Automating Welfare Reform in the States*, Washington, D.C., September 1997, p. 29.

⁸ Terrence Maxwell, *Working Paper on Information Federalism – History of Welfare Information Systems*, The Nelson A. Rockefeller Institute of Government, Albany, New York, 1999, p. 63.

The mechanism for federal IT project oversight developed in the 1970s and 1980's – which may have been appropriate for a time in which information technology development and implementation was centralized in large state-wide systems and based on proprietary standards – have been shown to add time, complexity, cost, and risk to modern day technology projects. Advances in project risk management coupled with a movement toward increased decentralization, modularity, and interconnectivity in the IT world call for new mechanism of technology project oversight and approval. Accordingly, federal and state governments must redefine their practices with respect to project planning, approval, oversight, procurement and implementation in order to more efficiently and effectively manage large-scale technology developments such as those common to welfare system development.